

OIB - C-130H Hercules #439 04/24/15 Science Report

Aircraft:

[C-130H Hercules #439](#) ([See full schedule](#))

Date:

Friday, April 24, 2015

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: Geikie 02 (priority: high)

This mission flies the centerlines of eight Geikie Peninsula glaciers. These are Sorgenfri, Christian IV, Bartholins, and South glaciers, plus five more glaciers with unknown names. We transit to and from the Geikie area along master grid lines and IceSat-1 ground tracks. For 2015 we add a crossing of a proposed core site on the Renland ice cap, plus an improved centerline of the Vestfjord Glacier.

We faced conflicting weather information this morning. Satellite images showed the Geikie area to be mostly clear but with a few patches of cloud at medium or perhaps lower altitude. Two weather models showed the area's weather to be unchanging through the day, while the third showed deteriorating weather there. Models consistently showed deteriorating weather for the next day, however. Since the Geikie area was the last remaining gap in our coverage of southern Greenland and we only had four possible flight days remaining in southern Greenland, we decided to launch this mission despite the risk of lost data due to cloudiness. Weather on-site was indeed partially clouded especially on the northern (windward) side of the Geikie peninsula, but we were able to obtain full science data on all but small portions of two glaciers. We encountered only mild and isolated turbulence.

The scenery today was, in a word, spectacular. The Geikie area is a perennial favorite of the OIB field team because of its many dramatic canyons, but the Scoresby Sund region immediately to the north is even more awe-inspiring. 5000-foot vertical rock walls rising from fjords are common sights there, as are isolated ice caps (including our Renland science target), moraines of immense scale, and glaciers and icebergs in profusion. Signs of human activity, however, are almost nonexistent in the remote area.

All instruments performed well today, with no problems reported. The root cause of yesterday's electrical failure, an intermittent short circuit in the power system, was located and repaired after that flight, and did not recur today.

We conducted a ramp overflight at 1000' AGL.

Data volumes:

ATM: 27 Gb

CAMBOT: 95 Gb

DMS: 135 Gb

Ku-Band Radar: 257 Gb

MCoRDS: 2.0 Tb

Narrow Swath ATM: 35 Gb

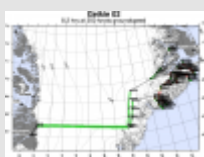
NSERC Onboard Data: TBD

Snow Radar: 257 Gb

total data collection time: 8.0 hrs

Images:

Map of Geikie 02 Mission



[Read more](#)

Medial moraines at Geikie



[Read more](#)

Glacier at Renland



[Read more](#)

Submitted by:

John Sonntag on 04/24/15

Related Flight Report:

C-130H Hercules #439 04/24/15

Flight Number:

Geikie 02

Payload Configuration:

OIB

Nav Data Collected:

No

Total Flight Time:

8.3 hours

Submitted by:

Luci Crittenden on 04/24/15

Flight Segments:

From:	BGSF	To:	BGSF
Start:	04/24/15 10:18 Z	Finish:	04/24/15 18:36 Z
Flight Time:	8.3 hours		
Log Number:	151002	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Geikie 02 high priority mission completed today		

Flight Hour Summary:

	151002
Flight Hours Approved in SOFRS	334.4
Total Used	297.6
Total Remaining	36.8

151002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
03/12/15	ATF	Check	1.5	1.5	332.9
03/13/15	PTF - GPS	Check	2	3.5	330.9
03/13/15	PTF - Radar #1	Check	0.8	4.3	330.1
03/13/15 - 03/14/15	PTF - Radar #2	Check	4.5	8.8	325.6
03/16/15	PTF - Radar #3	Check	2.4	11.2	323.2

03/17/15	Transit	Transit	7.8	19	315.4
03/19/15	Nansen Gap	Science	7.4	26.4	308
03/24/15	Sea Ice - Zigzag East	Science	8.2	34.6	299.8
03/25/15	Sea Ice North Pole Transect ? Thule	Science	8.2	42.8	291.6
03/26/15	Sea Ice - Laxon Line	Science	9.2	52	282.4
03/27/15 - 03/28/15	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
03/29/15 - 03/30/15	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
03/30/15 - 03/31/15	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
04/01/15	Sea Ice - South Basin Transect	Science	8.8	86	248.4
04/03/15	Sea Ice - South Canada Basin	Science	7.4	93.4	241
04/06/15	OIB Transit from BGTL- BGSF	Transit	3.3	96.7	237.7
04/08/15	Helheim-Kangerdlussuag	Science	8	104.7	229.7
04/09/15	K-EGIG Summit	Science	8.3	113	221.4
04/10/15	Southeast Glaciers 01	Science	8	121	213.4
04/11/15	East Glaciers 01	Science	8	129	205.4
04/13/15	Southeast Coastal	Science	7.7	136.7	197.7
04/14/15	Helheim-Kangerdlussuag Gap B	Science	7.9	144.6	189.8
04/17/15	Umanaq B	Science	7.5	152.1	182.3
04/18/15	Southwest Coast A	Science	8.1	160.2	174.2
04/20/15	Penny 01	Science	6.3	166.5	167.9
04/21/15	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
04/22/15	Southeast Flank 01	Science	7.6	182.8	151.6
04/23/15	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
04/24/15	Geikie 02	Science	8.3	200.3	134.1
04/25/15	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
04/27/15	Southwest Coastal B	Science	8	215.2	119.2
04/28/15	Southeast Glaciers 02	Science	7	222.2	112.2
04/29/15	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
04/30/15	ATM Laser Repair Checkout	Science	2.3	227	107.4
05/01/15	NW Coastal A	Science	7.2	234.2	100.2
05/05/15	IceSat-2 North / CryoSat- 2 SARIn	Science	8.2	242.4	92
05/06/15	North Glaciers 01	Science	8.2	250.6	83.8
05/07/15	Devon-Barnes 01	Science	7.8	258.4	76
05/08/15	Zigzag West	Science	7.2	265.6	68.8
05/11/15	Northwest Glaciers 01	Science	7.8	273.4	61
05/12/15	North-Central Gap 02	Science	8.1	281.5	52.9
05/15/15	North-Central Gap 01	Science	7.3	288.8	45.6
05/21/15	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
05/22/15	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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